CLAIMS

What is claimed is:

1. A method for adjusting the position of a head relative to a track on a rotatable storage medium, comprising:

5   determining the misplacement of a positioning pattern on a rotating medium;

identifying the quadrant containing the positioning pattern, the rotating medium having a plurality of quadrants extending radially across a surface of the rotating medium; and

10   storing information about the misplacement and quadrant to be used in any of a read operation and write operation that determines position using that positioning pattern, such that the misplacement information is only used for that quadrant.

15   2. A method according to claim 1, wherein:

determining the misplacement includes determining a position error signal for the positioning pattern.

3. A method according to claim 2, wherein:

20   the position error signal is determined by a servo controller.

4. A method according to claim 2, wherein:

the information stored about the misplacement includes a digital number that indicates amount PES should be adjusted for that

25   positioning pattern.

5. A method according to claim 1, wherein:

a quadrant includes a plurality of additional positioning patterns spaced about a track on the rotating medium; and

30   determining the misplacement of a positioning pattern includes examining the position of each of the plurality of positioning patterns in

the quadrant to determine an average positioning pattern position about the track.

6. A method according to claim 5, wherein:

determining the misplacement of a positioning pattern further includes determining the misplacement of the positioning pattern relative to the average position of positioning patterns about the track.

7. A method according to claim 1, wherein:

storing information about the misplacement and quadrant includes writing the information in the quadrant containing the positioning pattern.

8. A method for reducing written-in runout in a servo pattern on a magnetic hard disk, comprising:

determining the misplacement of a servo burst pair on a rotating hard disk;

identifying the quadrant containing the servo burst pair, the rotating hard disk having a plurality of quadrants extending radially across a surface of the disk; and

storing information about the misplacement of the burst pair and the quadrant to be used in any of a read operation and write operation that determines position using that burst pair, such that the misplacement is only used for that quadrant.

9. A method according to claim 8, wherein:

determining the misplacement includes determining a position error signal for the burst pair.

10. A method according to claim 9, wherein:

the position error signal is determined by a servo controller.

11. A method according to claim 9, wherein:

the information stored about the misplacement includes a digital number that indicates amount PES should be adjusted for that servo burst pair.

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12. A method according to claim 8, wherein:

a quadrant includes a plurality of additional servo burst pairs spaced about a track on the hard disk; and

determining the misplacement of a servo burst pair includes

10   examining the position of each of the plurality of additional servo burst pairs in the quadrant to determine an average burst pair position about the track.

13. A method according to claim 12, wherein:

15   determining the misplacement of a servo burst pair further includes determining the misplacement of the burst pair relative to the average burst pair position about the track.

14. A method according to claim 8, wherein:

20   storing information about the misplacement and quadrant includes writing the information in the quadrant containing the servo burst pair.

15. A method according to claim 14, wherein:

25   storing information further includes writing the information in the servo wedge containing the servo burst pair.

16. A method according to claim 14, wherein:

storing information further includes writing the information after

30   the servo burst pair in the servo wedge containing the servo burst pair.

17. A method according to claim 8, further comprising:

storing information about a misplacement of at least one additional burst pair and the additional quadrant containing the additional burst pair.

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18. A method according to claim 17, wherein:

the additional quadrant is adjacent the quadrant containing the servo burst pair.

10   19. A method according to claim 8, further comprising:

reading the stored information about the misplacement of the burst pair and the quadrant and using that information to position a head relative to the servo burst pair.

15   20. A method according to claim 19, further comprising:

not applying the misplacement information if another servo burst pair from another quadrant is used for position information.

21. A method of manufacturing a self-servowriting drive, comprising:

20   providing means for determining the misplacement of a servo burst pair on a rotating hard disk;

providing means for identifying the quadrant containing the servo burst pair, the rotating hard disk having a plurality of quadrants extending radially across a surface of the disk; and

25   providing means for storing information about the misplacement of the burst pair and the quadrant to be used in any of a read operation and write operation that determines position using that burst pair, such that the misplacement information is only used for that quadrant.

30   22. A method for adjusting the position of a head relative to a track on a rotatable storage medium, comprising:

determining the misplacement of a positioning pattern on a rotating medium;

identifying the quadrant containing the positioning pattern, the rotating medium having a plurality of quadrants extending radially across

5   a surface of the rotating medium; and

storing information about the misplacement and quadrant to be used in any of a read operation and write operation that determines position using that positioning pattern, such that the misplacement information is only used for that quadrant.

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